20ATED ehhaoat

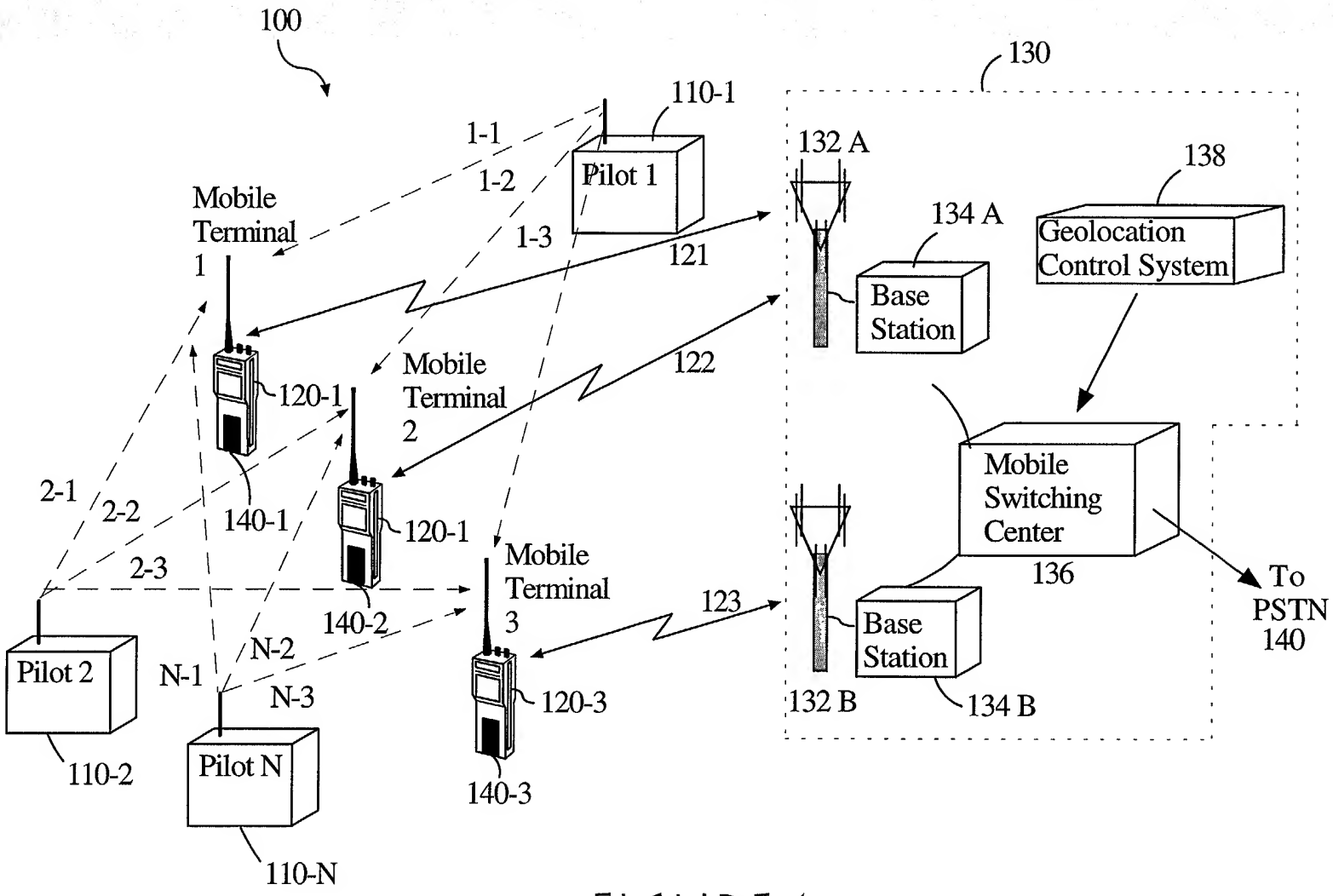

FIGURE 1

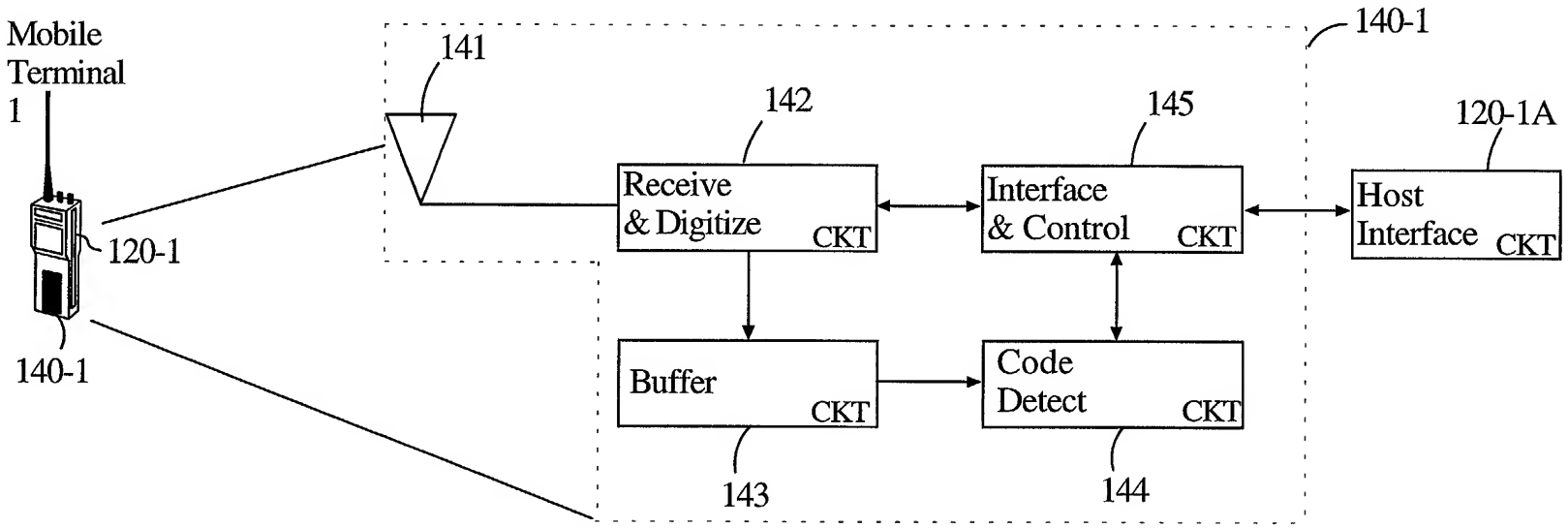
Mobile
Terminal
1
120-1
140-1
141
142
Receive
& Digitize
CKT
145
Interface
& Control
CKT
120-1A
Host
Interface
CKT
140-1
Buffer
CKT
143
Code
Detect
CKT
144

FIGURE 2

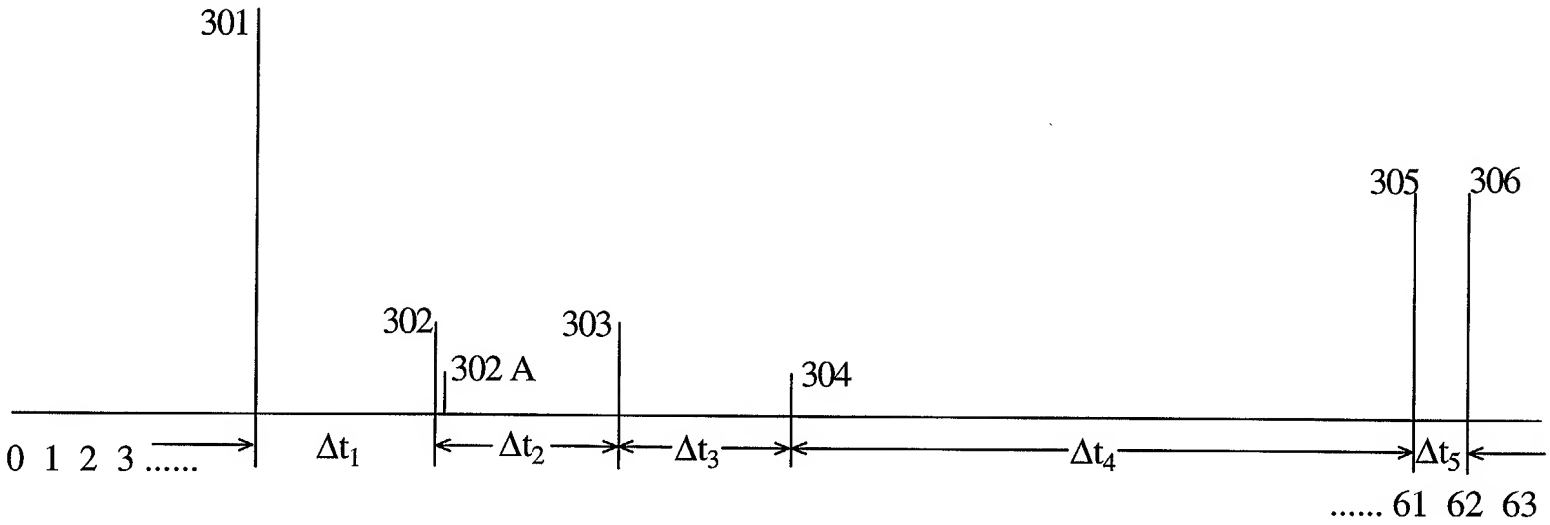

FIGURE 3

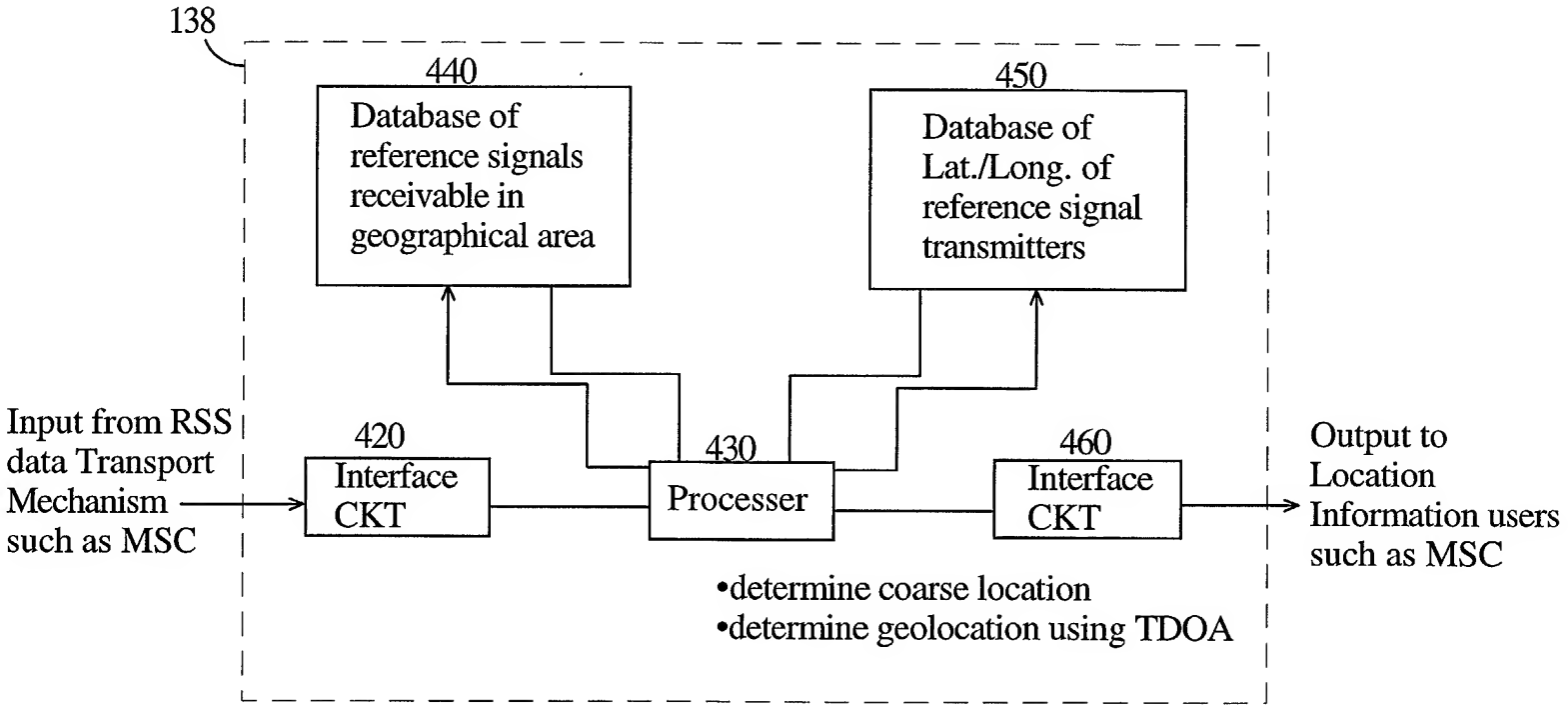
138
440
Database of reference signals receivable in geographical area
450
Database of Lat./Long. of reference signal transmitters
Input from RSS data Transport Mechanism such as MSC
420
Interface CKT
430
Processer
460
Interface CKT
Output to Location Information users such as MSC
•determine coarse location
•determine geolocation using TDOA

FIGURE 4

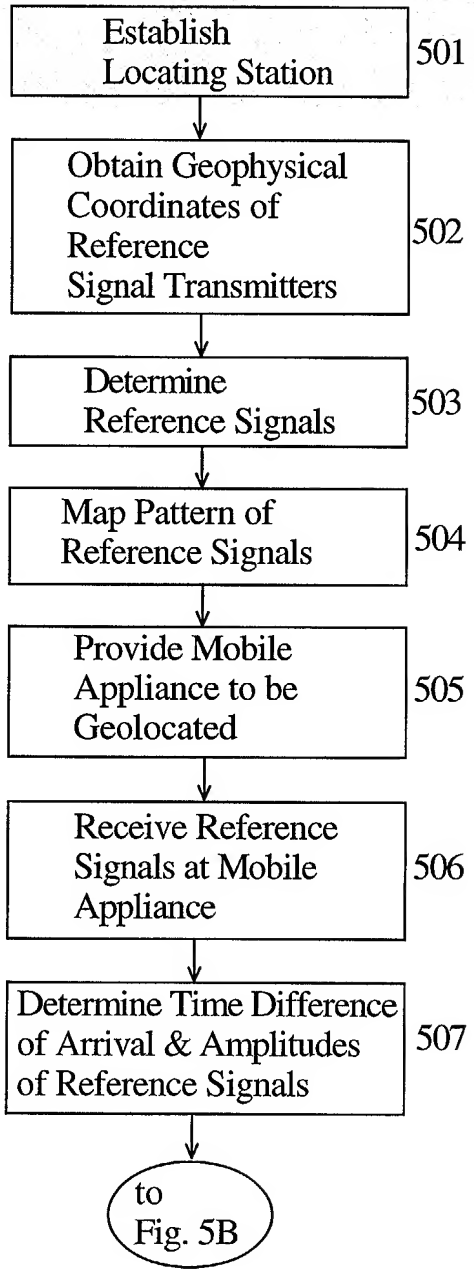
Establish Locating Station
501
Obtain Geophysical Coordinates of Reference Signal Transmitters
502
Determine Reference Signals
503
Map Pattern of Reference Signals
504
Provide Mobile Appliance to be Geolocated
505
Receive Reference Signals at Mobile Appliance
506
Determine Time Difference of Arrival & Amplitudes of Reference Signals
507
to Fig. 5B

FIGURE 5A

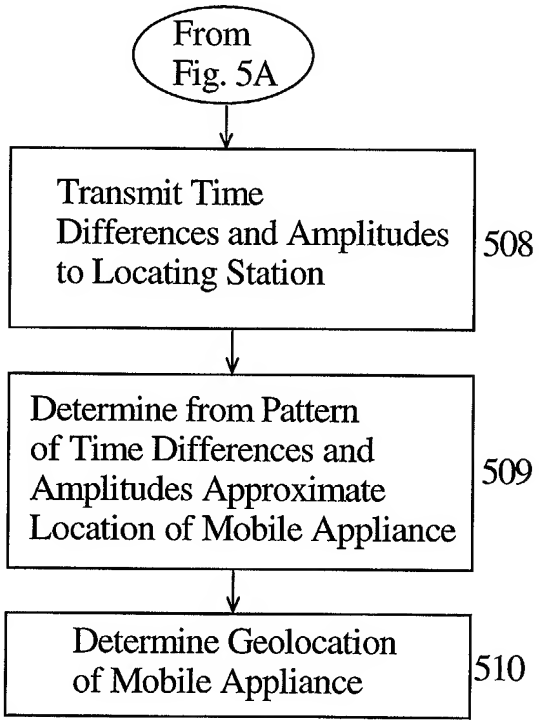
From Fig. 5A
Transmit Time Differences and Amplitudes to Locating Station
508
Determine from Pattern of Time Differences and Amplitudes Approximate Location of Mobile Appliance
509
Determine Geolocation of Mobile Appliance
510

FIGURE 5B